

# THE CURSOR

Vol. 9 No. 1

The Monthly Publication of Ottawa Home Computing Club (OHCC)

April 1992

## Editorial

The executive met for its monthly meeting on Monday, February 10th, 1992. Agenda items were discussed, reports presented and the newsletter prepared for mailing.

Also, a lengthy discussion took place regarding problems being encountered with the production of the newsletter. These discussions concluded with the following resolution: the newsletter will be published six times per year reduced from the present ten. Publication will coincide with months where speakers and/or demonstrations are to take place. The rationale behind this decision was reached only after serious consideration: a more in depth explanation is outlined below.

When the OHCC was first organized in early 1980, its founding fathers quickly realized the Club would face a number of monthly expenses — one being publication & distribution of the newsletter. In order to defray the costs involved, the membership fee was introduced. This was intended to cover not only newsletter production but other club-related costs. Since that time, revenues, unfortunately, have not kept pace with monthly expenditures.

Newsletter production costs have increased substantially during the past few years. Present and former executive members have studied and adopted a number of cost-cutting measures. One such action was the elimination of the envelope used to mail newsletters. Not only did this save on the cost of envelopes, but is also cut in half the required postage (envelope deemed oversized by Canada Post thus requiring double standard postage). Just as the

Club was beginning to see the proverbial light at the end of the tunnel, the Federal Government implemented its dreaded Goods and Services Tax. Not only did this add an additional 7% to our printing costs but is also increased our monthly postage expenses.

A number of members have, on occasion, offered suggestions relating to cost savings. The executive has examined each recommendation carefully. In most cases, the disadvantages usually outweighed the advantages. The following is a list together with rationale behind some of the most common suggestions we've received. 1. Handing out the newsletter at meetings. This would indeed save on both postage and printing costs. It should be noted the Club's mandate is to provide its members with a newsletter via the mail system. It is also used as a vehicle by which 2. Club news is announced together with notes on upcoming meetings/events. Producing newsletter on disk. Again, this is fundamentally a good idea.

Unfortunately, it also presents a host of new problems, not to mention being very time consuming. Because the Club supports several types of computer platforms, it would be necessary to produce the information (newsletter) in several different formats — from the C64 to MS DOS formats. Also, thought should be given to the person who does not own a computer but wishes to join the Club. (At present, all prospective members are given issues of the newsletter) Uploading the newsletter to the Bulletin Board. Like the above, this would also prove difficult mainly because the Club supports various types of machines.

By Pierre Castricum

The question remains — what do members who either do not own or wish to use a modern do in order to "read" their newsletter. Reduction in the number of newsletter pages.

This suggestion has been acted upon with some negative comments being received from various members. The most frequently asked question remains, "Why don't we ever see any newsletter articles dealing with other than MS DOS/C64 machines?"

As you know, I & others have been soliciting articles from you the member for the past few years usually all for not. For those of you who regularly submit articles, I thank you very much and commend you for your continued support.

As you can see from the above, the whole question of the newsletter has been examined in depth. If you have any questions, comments or suggestions regarding the above, please let me know, or Ray Monette, who is the Newsletter Editor.

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## MEMBERSHIP

Membership in the Ottawa Home Computing Club is open to all who have a genuine interest in home computing. The \$25 annual membership fee entitles members to:

- attend monthly meetings
- buy Club disks
- receive the Club newsletter
- participate in election of the executive
- participate in any other activities.
- full sign-on privileges on Club's BBS

## CLUB EXECUTIVE

## Elected Positions:

- President: Pierre Castricum, 830-6984
- Vice-Pres: Don White, 829-2082
- Secretary: Gerry Bouchard, 731-0920
- Treasurer: Lloyd Wright, 731-8408
- Program Co-ordinator: Bob Greeberg, 225-3698

## Librarians:

- Amiga: Don White, 829-2082
- Apple: Vojta Fryzek, 722-9778
- C-64: Keith Baker, 592-9509
- C-128-CP/M: Bob Thomas, 820-6835
- MS-DOS: 3 1/2 Ray Monette, 722-1204  
5 1/4 Gerry Bouchard
- Windows 3.0: Terry Hicks, 591-9959

## Other Positions:

- Membership: Susan Greenberg, 225-3698
- Bulletin Board SYSOP: Jean Fortier, 747-7660
- Retail Disk Distribution: Gerry Bouchard, 731-0920
- Newsletter Editor: Ray Monette, 722-1204
- Director at Large: Scotty Adams, 592-3492

## OHCC Bulletin Board 748-9873

Address all correspondence to:  
Ottawa Home Computing Club  
P.O. Box 4164, Station "C"  
Ottawa, Ontario K1Y 4P3

## MEETINGS

Club meetings are held monthly at Confederation High School (Woodroffe Ave. beside the Nepean Sportsplex), usually the third Monday of the month. Upcoming meetings are scheduled as follows:

**Apr. 13\*, May 11\*, June 8\***  
July and August to be announced ...

An \* beside a date indicates that the meeting is not on the third Monday of that month.

Meeting format is standard (see "Club Notes" for specific details on the upcoming meeting), and the format is:

- 7:00 Membership registration, Disk of the Month sales, socialization
- 7:30 Business Meeting
- 7:45 Main Presentation
- 8:30 Special Interest Group meetings

Special Interest Groups (SIG) are the best places to ask your questions, offer suggestions to the Club's executive and meet members who have the same computer as you do. You may even catch a demo of the latest software:

- Apple/Mac—Auditorium  
Scotty Adams
- C64/Disk of Month—Room 117  
Keith Baker
- Amiga—Room 128  
Don White & Peter Martin
- C128 & CP/M—Room 119  
Bob Thomas
- MS-DOS—Room 115  
Pierre Castricum
- C64 Beginners—Room 118

## OTTAWA HOME COMPUTING

Ottawa Home Computing is the Newsletter of the Ottawa Home Computing Club, and is mailed free of charge to members in good standing. Ottawa Home Computing is published 10 times a year.

Submissions to Ottawa Home Computing are most welcome. The preferred method of submission is by uploading your text file to the Club's BBS (see the "Readme" file in that area for instructions). If you don't have a modem, the

next best method would be on a disk. Contact the editor regarding formats.

Classified ads of personal items (up to 25 words) are free to members. For more information on commercial advertising, please contact the Advertising Manager.

## Newsletter staff:

- Amiga: *vacant*
- Apple/Mac: Mike Bryan, 226-5588
- MS-DOS: Bonnie Carter 747-7660
- Advertising Manager: Gerry Bouchard, 731-0920

Address all correspondence to:  
Raymond Monette  
1260 Emperor Ave.  
Ottawa, Ontario K1Z 8C5

## ORDERING DISKS:

The O.H.C.C. charges a nominal fee for the disks & duplication service as follows:

- \$4 for 5 1/4 inch single disk;
- \$5 for 3 1/2 inch single disk;
- \$3 per disk for 5 1/4 multi disk set;
- \$4 per disk for 3 1/2 multi disk set;
- \$6 per disk for non-members.

Only a few duplicated disks of every program are kept on hand. We strongly suggest that you call your librarian to order disks in advance of Club's meetings.

## Disclaimer:

To the best of our knowledge, all the programs in the O.H.C.C. libraries are public domain or shareware programs and are free of viruses. We encourage you to support the shareware concept by sending suggested donation to the author. The O.H.C.C. makes NO guarantee of the performance of the software in all libraries and assumes no liability of any kind. All software in the library is used at the purchaser's cost and own risk. If a disk is found to be defective, it will be replaced at no extra charge.

I would like to welcome all of you to the April meeting of the OHCC. Nominations and elections of a new slate of officers of the Club will take place during the April meeting.

The positions up for re-election are those of the President, Vice-President, Secretary, Treasurer and Program Co-Ordinator. Other officers of the Club shall be appointed by the executive committee. Each position is to be filled for a period of one year. Members in good standing for a period of one year shall be eligible for election. I would encourage those of you who would like to be part of the executive to be present at the meeting.

By the time you read this article, a number of changes to the BBS will have been made. These changes were made in response to a number of observations made by various members regarding their displeasure with a number of things

- the terminal program being described as very "user unfriendly". Statistics have shown this to have caused a steady decline in both usage and up/downloading. We have been monitoring this situation and have given your views serious consideration.

Members of the executive have therefore endorsed the following measures: As of April 1st, 1992, I have resigned from the position of SYSOP. For the past several months, performing the duties of both President and SYSOP have become increasingly difficult. I would like to thank everyone for their generous support shown me as SYSOP.

I am pleased to announce that Jean Fortier has been appointed as the OHCC SYSOP. Together with his appointment, Jean has agreed to have the BBS moved to his home in Gloucester. The move and set up of the BBS took place in late

March and is scheduled was fully operational as of April 1st.

Jean will be able to answer any/all of your questions regarding the BBS. The terminal program has been changed together with the computer system. This will provide members with a more "user-friendly" program together with a number of features not available on our old BBS.

**PLEASE NOTE THAT  
THE NEW  
TELEPHONE NUMBER  
FOR THE BBS IS  
613-748-9873.**

As noted above, it's election time again. I sincerely hope to see you at the meeting.

## MS-DOS Software Library

You've probably noticed or heard me say that the DOS library had just been increased by 85 Shareware disks. These were donated by Gerry Bouchard.

With this recent batch of disks we now have 305 disks in our DOS' library. Thanks again Gerry!

If you see or hear of any upgrade or any disks you would like to see in the library, please feel free to let me know, and I will try my best to get them.

If you have a Public Domain program which you think might benefit the club members and would like to donate to the

By Ray Monette

Club, we will give you a program from our library in exchange.

As of this month, we will be getting again the "Disk of the Month".

I made arrangements with Jean Fortier, and he will be doing them. Jean was the one who, after Harald Freise had stop producing the monthly disk, took on this task.

Thanks Jean!

If there is a specialized kind of disk you would like to see for the "Disk of the Month", please let Jean know. One month it might be Utilities, the next month Windows 3.0, or even a Game disk. Or, let Jean put it together at his discretion.

## THE CMD HARD DISK DRIVE

Commodore 64 & 128, MS-DOS Compatible  
Commodore 64 and 128 Applications

as researched by:

J.G. Frajkor —Professor  
Television / Journalism  
Carleton University

Confederation High School — Monday, April 13, 1992



### *This is the 8th in a series of articles regarding the C64*

Do you know anyone who is blind, deaf, or physically disabled? If so, do you know if they are using some kind of adaptive microcomputer technology? This newly developing technology enables effective communication for those suffering with the disabilities of cerebral palsy, multiple sclerosis, Downs syndrome, disabling auto accidents, blindness, deaf/blindness, Lou Gehrig's disease, and others. When I was growing up in the 40's and 50's, such disabled persons were restricted to sitting around doing nothing. But today, all a disabled person needs is a C64, or another kind of home computer, some special control devices, special software and he/she can be as creative and communicative as desired.

Adaptive Microcomputer Technology has developed into big business and includes such items as: synthesized speech for the blind, telecommunication devices for the deaf, voice recognition microphones, other control devices for the physically impaired, and specialized software. This adaptive microcomputer technology represents an electronic "Bill of Rights" for the physically challenged.

The COMPUTER FOUNDATION FOR HANDICAPPED CHILDREN is a non-profit foundation for handicapped children with C64s (and Apple IIs) in Tempe, Arizona. Don Peterson, the Founder and President, believes that the high cost of business computers has taken many computers out of financial reach for handicapped persons, who usually have very limited resources. He, being officially blind, favours a computer, disk drive, and printer, costing less than \$500— and free software.

The Foundation possesses a library of over 250 of their own programmed software for the handicapped. This software has been distributed worldwide for about 20 cents per program, and the Foundation encourages others to freely copy the programs. Don Peterson said

that the software was written to do the following: "

1. enable generation of speech and printout by use of a single switch, a joystick, or a keyboard;
2. use Morse code for generation of single switch speech and printout;
3. operate a word processor with a single switch, a joystick, or a keyboard;
4. operate a talking word processor that is suitable for the blind;
5. use a vast collection of public domain education programs operated by a keyboard;
6. operate numerous talking-programming aids for the blind;
7. enable choosing your own music in 3-part harmony with a single switch, or with a talking loader for the blind; and finally,
8. play a great variety of single switch, keyboard, joystick, or talking games".

The Foundation is managed by eight Directors and guided by an Advisory Committee of ten members.

The Foundation has been extremely active in the past few years. It has mailed over 20,000 copies of their software programs to persons in Canada, the U.S., and Australia. A volunteer quadriplegic travels throughout Arizona conducting computer workshops for parents and special education teachers. They produce a regular newsletter to inform and raise funds for their work, and Don Peterson has written a book entitled "Low Cost Computers and the Handicapped".

Stories about the activities of the Foundation have been published in every major newspaper in Arizona, and numerous articles have been published in other American newspapers and magazines. As a result of all this work, two Foundation directors have received the most prestigious award for caring work that can be bestowed by the state of Arizona. The catalog of the Computer Foundation for Handicapped Children contains the following software programs for the C64: a. 175 single switch, joystick, and Morse code programs for communication and early learning; b. 20 sets of SID single switch and title-talking music; c. 60 programs for low vision and the blind; d. 600 keyboard educational programs, pre-school

through high school; and e. 6000 Print Shop pictures in sets. Audio cassettes for learning about the C64 are also available, i.e., a. The computer keyboard, b. Touch typing lessons, c. BASIC programming lessons for the blind, d. Use of Busy Bee program for writing executable programs by the blind, e. Operation of programs for the adult blind, f. Busy Bee Talker lessons, and g. Operating instructions for the blind.

Let me describe a few examples of programs available. For example, the program, "Type/Say/Print", speaks individual letters as they are typed on the keyboard and shown on the screen, then speaks the words as they are formed on the screen, and finally a line of text will be sent to the printer. The program, "Deaf/Blind/Read" enables one to talk to a deaf/blind person by typing a short message on the keyboard, then the program translates the message that was typed into Morse code which can be read with a finger by Morse code vibrations. The deaf/blind person must, of course, understand Morse code. The program, "Play Keyboard", enables one to play up to two octaves on the keyboard; and finally, the program, "Kaleidoscope1", is a spectacular coloured kaleidoscope with accompanying music.

If you know someone who is disabled in some way, take it upon yourself to help them get some kind of adaptive microcomputer technology. If you know of someone who would be interested in the activities of the COMPUTER FOUNDATION FOR HANDICAPPED CHILDREN, or interested in obtaining a free sample disk with twelve programs; have them write to:

Computer Foundation For Handicapped Children  
2645 East Southern, #A326  
Tempe, Arizona  
85282

## Membership Report - April 92

By Susan Greenberg

If your name appears on this list, please check with me, your membership chairperson. A one-month grace period will be allowed, then your name will automatically be removed from the membership list. Membership standing is 156 as of April 1, 1992. Please renew now. Please bring a friend, we need new members.

PLEASE NOTE THAT THE MEMBERSHIP DUES ARE NOW \$30.00

Pigeon, Daniel	92.05.00	St Denis, Lucien J.	92.05.01
Mason, Bob	92.05.03	Martin, Peter	92.05.05
Bero, Mary	92.05.09	Hansen-Trip, Niels	92.05.15
Bellack, Allan G.	92.05.18	Moore, Robin K.	92.05.19
Dal (Sr.), Pieter	92.05.20	Perkins, Jim	92.05.21
Lowe, Helen	92.05.22	Bosserer, Colin	92.05.23
Cunningham, Brian	92.05.24	Lan-Tech	92.05.25
Davidson, Jim	92.05.26	Klassen, Chuck	92.05.27
Stekelenbur, Jack	92.06.00	Lalonde, Gaetan G.	92.06.01
Colwell, C. Rupe	92.06.02	Wang, Philip	92.06.03
Park, Esther	92.06.04	MacWhirter, Greta	92.06.05
Freise, Harold	92.06.06	Beaton, Alexander P.	92.06.07
Stokes, Frank	92.06.08	Cashman, Morley A.	92.06.09
Benson, Dale	92.06.10	Wieler, Paul	92.06.11
Fortier, Bonnie	92.06.12	Fortier, Jean	92.06.13
Schaler, Wayne D.	92.06.14	Kelly, Ron	92.06.15
Gendron, Thomas	92.07.00	Thrasher, Ed	92.07.02
Sager, Cec H.	92.07.03	Harvey, Jean	92.07.04
Blank, Otto	92.07.11		

### WELCOME TO OUR NEW MEMBERS THANK YOU FOR RENEWING (N = New; R = Renewal)

Greenberg, Bob/Susan(R)	93.02.01	Campbell, W. F. (R)	93.02.04
Andrews, Rob (N)	93.02.05	Grant, Robert S. (R)	93.02.06
Thomas, Raymond (R)	93.02.07	Dimillo, Darl (R)	93.02.08
Greenway, Henry (N)	93.02.09	Rea, Neville (N)	93.02.10
Norton, John Reid (N)	93.02.11	Trotter, Glen (N)	93.02.12
Hopkins, Ted (R)	93.03.01	Faber, Daniel J. (R)	93.03.02
Frajkor, Jan G. (R)	93.03.03	Perron, Michel (R)	93.03.04
Forget, Roger (R)	93.03.05	Hanna, John (R)	93.03.06
MacLennan, Neil (R)	93.03.07	Tessier, Jean-Marc(N)	93.03.08
Ali, Muhammad (N)	93.03.09	Signorelli, Julio (N)	93.03.10
Armstrong, George (R)	93.04.01	Dyck, Walter (R)	93.04.02
Daly, John (R)	93.04.03	Carter, Peter (R)	93.04.04
Sally, Eileen C. (R)	93.04.05	Lennon, Orville (R)	93.04.06
Atkinson, Paul C. (R)	93.04.07	Ducy, George A. (R)	93.04.08
Watchorn, James (R)	93.04.09		
Adams, Scotty (R)	93.05.01	Baker, Keith R. (R)	93.05.02
Bigras, Carl (R)	93.05.03	Bouchard, Gerry (R)	93.05.04
Bryan, Mike (R)	93.05.05	Casricum, Pierre(R)	93.05.06
Frysek, Vojta (R)	93.05.07	Hageraas, Hans (R)	93.05.08
Monette, Raymond (R)	93.05.09	Thomas, Robert (R)	93.05.10
White, Don (R)	93.05.11	Wright, Lloyd E. (R)	93.05.12

## QuickTime, ATM, fixes highlight System 7.1

By Faines Cohen

Reprint from "The Wrapple", Calgary  
Apple Corps Computer Club.

A new general release of the Mac operating system is due sometime early next year, but Apple has not yet settled on the features, dates and distribution of the new system.

System 7.1 was originally slated for releases at January's MacWorld Expo, but sources said last week that it will probably be delayed. In addition to a number of fixes for known bugs in 7.0 and 7.0.1, the new release is likely to incorporate several already-completed extensions, including *QuickTime*, *Adobe Type Manager* and the improved mathematical routines folded into 7.0.1.

Apple is reportedly considering several alternative approaches to distributing the upgrade. Users might have the choice of obtaining the new features as a package of extensions or buying System 7.1 in its entirety in form of a new *Personal Upgrade Kit*. Pricing has not yet been determined.

Different extensions might be included in the system delivered with different machines, just as *AppleTalk Remote Access* is now bundled with the *PowerBooks*. *QuickTime*, for example, is likely to be shipped with high-end Macs but not the *Classic* or *PowerBook 100*.

User groups and on-line services might be prohibited from distributing the new version or an updater unless they meet certain support criteria.

The new system will not include the *Open Collaboration Environment* (OCE) extension Apple announced last month, even though the company will release it to developers and show it in a technology demonstration at the January *MacWorld Expo*.

System 7.1 will come with all new CPU's.



Tom writes for **A-prompt**, the newsletter of the PC User's Group of Jacksonville.

Two DOS 5.0 commands that can be used so innocently yet cause so much grief are **FORMAT** and **DELETE**. To compensate, several new DOS commands have been added to help recover from inadvertent misuse.

### Undelete

Delete files are not actually removed from the disk. DOS marks these files in the directory and relocates the occupied disk space. The **UNDELETE** command provides a means that may allow recovery of accidentally deleted files. I use the word *may* for two good reasons. If another file is saved before recovery of the deleted file is started, most likely DOS has used the available space and complete recovery is doubtful or impossible. Secondly, recovering a fragmented file tends to be more difficult. When you first realize a file has been accidentally deleted, **UNDELETE** it immediately.

The syntax for the command and several switches are as follows:

- **UNDELETE** drive:\path\filespec

- **/DT** - Recover deleted files recorded in the Delete Tracking feature of the Mirror command.
- **/DOS** - Tells **UNDELETE** to use information in the DOS directory. You will be prompted for the first character of the file name to be recovered.
- **/List** - **UNDELETE** will display a listing of files available for recovery.
- **/All** - Recover all deleted files without prompting. DOS supplies its own first character to the file name.

### Unformat

Accidentally formatting a floppy disk is easy. Accidentally formatting a hard disk requires more effort but is also relatively easy to do. The new **UNFORMAT** command offers the ability to restore a disk, directory and files by reconstructing file storage information saved by DOS or created by the **MIRROR** command.

**UNFORMAT** cannot recover a disk formatted with an earlier version of DOS or when the **/U** switch has been used with the Version 5 **FORMAT** command.

The syntax for the **UNFORMAT** command and available switches are as follows:

- **UNFORMAT** drive:
- **/V** - Verifies the contents of the **MIRROR** file to see if it agrees with information on the disk.
- **/L** - Lists all files and directories found in the root directory. When used with **/PARTN**, information from the disk partition table is displayed.
- **/P** - Sends messages to the printer connected to LPT1.
- **/U** - Rebuild the disk without using the **MIRROR** file.
- **/PARTN** - Restore the partition table. Use with the **/L** switch if **MIRROR** is not present or a **PARTNSAVE.FIL** has not been created.
- **/Test** - Determines status of the disk but does not restore it.

This article comes from the Newsletter of the Calgary Personal Computer User Society.

## Pirate News !

By Patrick Cohan

The following is a reprint from *Big Blue & Cousins Newsletter*.

In a continuing crackdown on software piracy, the RCMP has seized the components of the Montreal Bulletin Board "North 90" and charges are pending, according to staff sergeant Yves Roy, of the RCMP Federal Investigation Section. Roy said this was the first execution of a search warrant under the Copyright Act of Canada against an electronic bulletin board system (BBS). The RCMP seized 10 PCs, seven modems, and software present on the system, worth an estimated \$25,000, according to a statement issued by Canadian Alliance Against Software Theft (CAAST).

Allan Reynolds, secretary to CAAST, said the RCMP acted in response to concerns registered by various users of the

BBS, "because they suspected that some of the software was not authorized for distribution through a bulletin board". According to CAAST, following a four month investigation, the RCMP established that "North 90" enabled users to obtain software in exchange for other files or for an annual fee of \$49.00.

While some of the programs were legitimate shareware, CAAST said, "Much of the available material was protected under the Copyright Act including Beta versions of commercial software packages which had not been released on the market". According to Colin Wyatt, general manager of Lotus Development, these were Beta versions of major software.

More than 3,000 programs were available to users, including WordPerfect 5.0,

DOS 5.0, Windows 3.0, Lotus 123 for Windows, Borland C++, Quatro Pro 3.0, dBase IV 1.1, NetWare 3.11, and Clipper 5.0. Roy said the RCMP is still gathering information, but added charges would be laid this month under the Copyright Act. A summary conviction carries a maximum fine of \$25,000 and up to six months in jail.

Reynolds said CAAST suspects piracy is a problem with a "large number of bulletin boards". He said his organization hopes bulletin boards view this as a warning. For the RCMP, the latest incident comes on the heels of a seizure in October which saw more than 150 computers alleged to be loaded with pirated software seized from MICROBEC, a system dealer in Quebec.

If you ever wonder about the history of your computer, Well I have a story to tell you about the Commodore computer series.

Commodore was one of the few computer companies to survive 1983. Commodore did more than survive: it came out on top. The \$200 C-64 dominated the market for home computers; Commodore sold as many computers as it could make at Christmas 1983.

Unlike its rivals Atari and Texas Instrument, Commodore has never stayed long with any one machine, but rather introduced new models seemingly on top of one another, somewhat the way Japanese Consumer Electronic Companies do. Commodore introduced the 64 in 1982 while its Vic-20 was still selling strongly; the Vic did a slow fade during 1983, never formally dropped by the company, but simply from sight.

The C-64 is an excellent machine for its price, having, as its name implies, 64K of memory. It uses essentially the 6502 processor, modified by Commodore and called the 6510. It has excellent sound and graphics abilities and, with a disk drive, its a good machine.

In January 1984, Commodore two new machines, the 264 and 364 models, then announced delays in their shipment. On January 13, 1984, Jack Tramiel, the Company's founder, announced his resignation from the company in a powerplay invoking Commodore's chairman and principal stockholder, Irving Gould. The relationship, if any, of these events is not clear; what is clear is that Commodore, whose sales more than doubled between 1982 and 1983, will be a very different company in the coming years.

### The Company

Commodore Business Machines, Inc. (CBM) is a subsidiary of Commodore International Ltd., (CIL) traded on New York Stock Exchange (NYSE) as CBU. The parent company also owns MOS Technology, developer of the 6502 microprocessor used in some competing

computers, like Apple IIE and Atari models.

Commodore, unlike other companies in the personal computer field, has closely followed the fortunes of its founder, Jack Tramiel. Tramiel started the company in 1958 in the Bronx, New York, where he worked as a typewriter repairman. In 1960, the company moved to Toronto, Canada. Finally ending its wandering by incorporating offshore as Commodore International, Ltd., in Nassau, The Bahamas.

In the 1970's Commodore was a participant in the calculator boom. To its credit, the company managed to survive the mid-1970's bloodbath that left only Texas Instrument, Hewlett-Packard, and the Japanese still in the business.

Looking for new products, Commodore acquired MOS Technology, developer of the 6502 microprocessor, in November 1976. MOS Technology has been started by Chuck Peddle and a crew that had developed the 6800 microprocessor at Motorola. In 1975, however, MOS Technology has been seriously weakened by expensive litigation with Motorola. Commodore made MOS an offer it couldn't afford to refuse. It also picked up a company called Frontier Manufacturing at the same time, giving Commodore everything needed for microcomputer manufacturing.

In January 1977, Commodore introduced the PET, which appeared in store late that year. The name PET had something to do with the idea of home computers as pets and with the Pet rock, a fad at the time, and officially stood for personal electronic transactor. The PET was considered big news and, like Apple II, generated great interest at the March 1977 West Coast Computer Fair. Commodore was one of the first companies to use Microsoft BASIC, an important first step in establishing William Gate's version of BASIC as a standard.

In 1980, Commodore confounded the market by changing, or apparently changing, the name of PET to the CBM,

or Commodore Business Machine. The CBM had full keyboard and 80 columns in upper-and lower-case, but this concentration on high end-products proved to be a mistake. For several years, Commodore seemed to disappear from the U.S. market. Although Tandy and Commodore shared most of the personal computer market in 1979, Apple pulled up even with Commodore in 1980 and passed it in sales in 1981.

Commodore, enjoying strong sales in Europe and Japan, appeared not to care about the U.S. market, where it suffered from bad press and bad relations with dealers. However, the company had some tricks up its sleeves.

Commodore introduced the Vic-20 version quietly in the late 1980 and introduced with it a new style in its computer operations.

With the Vic-20, Commodore did what it originally wanted to do with the PET—produced a computer that could be sold with a minimum of support from almost any retail outlet, including discount stores like K-Mart. (Commodore's first big distribution deal in the U.S. was with the Mr. Calculator.

In 1982 Commodore announced the C-64, then a \$595 computer with 64K of RAM. The 64 uses a new 6510 microprocessor developed by Commodore's subsidiary, MOS Technology.

Another Commodore-designed chip, the 6581, is a three-voice music synthesizer, each voice having a nine-octave range. The 6581 has programmable envelope generators for each voice (attack, sustain, release, decay), filters, and resonance.

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**Postmaster:**

If undeliverable, return to:  
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